

Application: Cleaning Refurbished Electronics for Robots		Date: 6/1/22
Serial number: 1006-0121	Machine model: Aquamaster CB-1800E	
Machine type: Conveyorized Belt		Industry: Electronics/Electrical

Customer summary:	Supplier of robots, CNC systems, and factory automation
Item to clean:	Refurbished printed circuit boards, servo, spindle, power supply units
Contamination:	Cutting oils, soluble coolant, chips, various soils
Cleanliness requirement:	Visually clean and oil-break free
Dryness requirement:	As dry as possible
Production rate:	1 ft. per minute belt speed
Process parameters:	Wash, rinse, D.I. halo rinse, heated blow-off

Customer background:

The customer is a leading supplier of robots, CNC systems, and factory automation. They also produce industrial IoT products. It is one of the largest and most familiar automation companies.

Challenge:

The customer needed to clean various electronic parts for a refurbishing operation. Parts included printed circuit boards, servo components, spindles, and power supply units. The parts were contaminated with cutting oils, soluble coolant, chips, and various soils.

Solution:

Alliance provided the Aquamaster CB-1800E belt washer. This style of washer allows for a variety of parts to be run simultaneously. The belt is 18" wide and clearance is 18" high which can accommodate large parts. This machine includes multiple zones, including a wash, rinse, fresh water de-ionized rinse, and heated blow-off to remove as much moisture as possible. Alliance's exclusive pull-out spray headers allow for quick and easy nozzle maintenance. Also included are dual exhaust fans, a solution heat auto-timer, micro-filtration with a contamination sensor, chemical injection system, and an oil coalescer. A 10 foot long gravity roller conveyor is added to the unload end for part management.

Cleaning Method:

Aqueous cleaning was chosen due to the variety and large size of parts needing to be cleaned. The customer needed to have a machine available to continually feed parts for cleaning as needed.



Aquamaster CB-1800E



Interior spray nozzles



Heated blow-off zone